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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,426	09/23/2003	Bahar Reghabi	047711-0321	4240
23392 7590 04/11/2007 FOLEY & LARDNER 2029 CENTURY PARK EAST SUITE 3500 LOS ANGELES, CA 90067			EXAMINER SMITH, TERRI L	
			ART UNIT	PAPER NUMBER
			3762	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/11/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/669,426

Applicant(s)

REGHABI ET AL.

Examiner

Terri L. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 1-41 and 49-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-48 and 53-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the Office Action filed on 03 August 2006 has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 December 2006 has been entered.

### *Election/Restrictions*

2. Applicant's election with traverse of Embodiment II, Claims 42–54 drawn to Fig. 2 in the reply filed on 28 February 2007 is acknowledged. The traversal is on the ground(s) that claim 1 refers to, among other features, “a plurality of implantable sensing elements, each implantable sensing element of the plurality of implantable sensing element is operable through electrical communication with an external controller via an individual interconnect.” And claim 26 refers to, among other features, “a plurality of implantable sensing elements, each implantable sensing element of the plurality of implantable sensing elements operable through electrical communication with an external controller via an individual interconnect.” And, for both claims 1 and 26, an individual interconnect can be used for daisy chaining each sensor to one another and it can also be used to connect each sensor to an external controller. This is not found persuasive because, even though these statements hold true for Embodiment I, drawn to claims 1 and 26 and their respective dependent claims, the statements do not pertain to Embodiment II, drawn to claims 43–48 and 53 drawn to Fig. 2. Independent claim 43 refers to, among other

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features, "each implantable sensing element of the plurality of implantable sensing elements operable through electrical communication with an external controller via a respective individual interconnect of a plurality of individual interconnects" where each of the plurality of implantable sensing elements are in electrical communication with an external controller via its own individual interconnect (which means there are as many individual interconnects as there are sensing elements), unlike claims 1 and 26, where there is only one individual interconnect to which all of the plurality of implantable sensing elements are connected to, in electrical communication with an external controller (which means there is only one interconnect to which any given number of sensing elements is connected to).

The requirement is still deemed proper and is therefore made FINAL.

3. Based on Applicant's election of the Embodiment II drawn to Fig. 2, claims 42–48 and 53–55 will be examined, where claim 42 is generic and claims 43–48 and 53–55 represent Embodiment II drawn to Fig. 2. Claims 1–41 and 49–52 will not be examined as they are drawn to the non-elected species of Embodiment I drawn to Fig. 1.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 42 and 54–55 are rejected under 35 U.S.C. 102(b) as being anticipated by Scarantino et al., PCT WO2001/22874.

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6. Regarding claims 42 and 54–55, Scarantino et al. discloses implanting an implantable sensor at a single site in a patient (e.g., FIG. 1A), an implantable sensor having a housing within which are disposed a plurality of implantable sensing elements (e.g., FIG. 7, elements 50", 50I and 51); and reading an output from at least one implantable sensing element of a plurality of implantable sensing elements (e.g., FIG. 1A; page 11, lines 30–37), wherein each implantable sensing element of a plurality of implantable sensing elements each comprises a respective power supply (e.g., FIG. 9, elements 50Di), wherein a plurality of parameters are read from an implantable sensor at a single site, and wherein an output read from at least one implantable sensing element of a plurality of implantable sensing elements is a quantifiable value (claims 42 and 55) (e.g., FIG. 4; page 6, lines 27–29; see discussion for FIG. 4 on pages 18–20; page 9, lines 13–14); each implantable sensing element of a plurality of implantable sensing elements is operable through electrical communication with an external controller via a respective individual interconnect of a plurality of individual interconnects (claim 54) (e.g., FIG. 1A, elements 75, 76 and 80 in combination; FIGS. 6A–6B, elements 151).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 43–47 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarantino et al. and further in view of Natarajan et al. U.S. Patent 6,501,983.

10. Regarding claims 43, 47 and 53, Scarantino et al. disclose implanting an implantable sensor at a single site in a patient (e.g., FIG. 1A), an implantable sensor having a housing within which are disposed a plurality of implantable sensing elements (e.g., FIG. 7, elements 50", 50I and 51), each implantable sensing element of a plurality of implantable sensing elements operable through electrical communication with an external controller via a respective individual interconnect of a plurality of individual interconnects (e.g., FIG. 1A, elements 75, 76 and 80 in combination; FIGS. 6A–6B, elements 151), each implantable sensing element of a plurality of implantable sensing elements allowing for sensing at least one of a respective physiological parameter (e.g., FIG. 4; page 6, lines 27–29); and reading an output from at least one implantable sensing element of a plurality of implantable sensing elements (e.g., FIG. 1A; page 11, lines 30–37), and wherein a plurality of parameters are read from an implantable sensor at a single site, wherein an output read from at least one implantable sensing element of the plurality of implantable sensing elements is a quantifiable value (e.g., FIG. 4; page 6, lines 27–29; see discussion for FIG. 4 on pages 18–20; page 9, lines 13–14), and wherein a plurality of implantable sensing elements comprises a pH level sensing element measuring a parameter for pH level (e.g., page 16, lines 17 and 35–37; this reference also teaches claim 47). Scarantino et

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al. do not disclose a lactate sensing element measuring a parameter for blood lactate level and a blood oxygen saturation sensing element measuring a parameter for blood oxygen level.

However, Natarajan et al. disclose a lactate sensing element measuring a parameter for blood lactate level and a blood oxygen saturation sensing element measuring a parameter for blood oxygen level (e.g., column 17, lines 22–23) to alert a patient or medical care provider in a timely manner of a life threatening event so that appropriate life-saving therapy can be administered.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the invention of Scarantino et al. to include a lactate sensing element measuring a parameter for blood lactate level and a blood oxygen saturation sensing element measuring a parameter for blood oxygen level, as taught by Natarajan et al. to timely assist in potentially saving a patient's life.

11. With respect to claims 44–46, Scarantino et al. disclose the essential features of the claimed invention as described above except for administering therapy for myocardial ischemia (claim 44) and myocardial infarction (claim 45) on the patient and implanting an implantable cardiovascular defibrillator (ICD) into the patient and administering defibrillation (claim 46) to the patient that is based on the output read from the at least one implantable sensing element.

However, Natarajan et al. disclose administering therapy for myocardial ischemia and myocardial infarction on the patient and implanting an implantable cardiovascular defibrillator (ICD) into the patient and administering defibrillation to the patient based on the output read from the at least one implantable sensing element (e.g., column 14, line 66–column 15, line 7; column 17, lines 14–18 and 27–29; column 19, lines 56–62; column 13, lines 66–67) to potentially save a patient's life from life-threatening arrhythmia. Therefore, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to have modified the invention of Scarantino et al. to include administering therapy for myocardial ischemia and myocardial infarction on the patient and implanting an implantable cardiovascular defibrillator (ICD) into the patient and administering defibrillation to the patient that is based on the output read from the at least one implantable sensing element, as taught by Natarajan et al. to potentially save a patient's life from life-threatening arrhythmia.

12. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scarantino et al. and Natarajan et al. as applied to claim 43 above, and further in view of Polaschegg, U.S. Patent 4,844,871.

13. Scarantino et al. and Natarajan et al. disclose the essential features of the claimed invention as described above except for administering therapy for extracorporeal membrane oxygenation (ECMO) to the patient that is based on the output read from at least one implantable sensing element. However, Polaschegg discloses administering therapy for extracorporeal membrane oxygenation (ECMO) to the patient (e.g., Figs. 1–2, elements 14, extracorporeal circuit and 18, blood treating device, in combination; column 6, lines 33–38) to ensure patient safety during a medical procedure. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the modified inventions of Scarantino et al. and Natarajan et al. to include administering therapy for extracorporeal membrane oxygenation (ECMO) to the patient, as taught by Polaschegg to ensure patient safety during a medical procedure.




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*Conclusion*

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Terri L. Smith whose telephone number is (571) 272-7146. The Examiner can normally be reached on 7:30 a.m. - 4:30 p.m..

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
TLS  
March 27, 2007

27 March 2007

  
GEORGE R. EVANISKO  
PRIMARY EXAMINER

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